

# AWIS

ASSOCIATION FOR WOMEN IN SCIENCE

*The first* **40** *years*

**Celebrating 40!**

Mentoring and More

Instituting Title IX

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**YOUR NETWORK, YOUR RESOURCE, YOUR VOICE**

## ■ Features

- 14 *Forty Years of AWIS: Reflections, Thoughts, and Advice from Dr. Phoebe Leboy* Melissa McCartney
- 16 *Turning 40!* Heather R. Luckarift
- 19 *The Early Years of AWIS Activism* Marsha Lucas
- 22 *AWIS Partners: Positively Impacting Women in Science and Engineering* Michelle Bond
- 24 *Past President and Mentoring Guru, Donna J. Dean* Sarah Rhodes
- 26 *Carol Greider Makes History as the First AWIS Member to Receive the Nobel Prize in Medicine* Ana DePina
- 28 *Title IX in Science: Improving Gender Equality* Tong Zhang

## ■ National AWIS

- 4 PRESIDENT'S REMARKS *Happy Birthday AWIS!* Joan Herbers
- 5 NEWS FROM NATIONAL AWIS *Financial Statement*
- 6 EDITOR'S NOTES *Creating a Future from the Past* Faye Farmer
- 9 *A Legacy to Benefit for Generations to Come* Elizabeth S. Ivey
- 10 *AWIS Timeline*
- 12 *Donor's List*
- 13 VOLUNTEER HIGHLIGHT *One Volunteer's Vision*

## ■ In Every Issue

- 30 RESEARCH ADVANCES *Dispersant Use in the Deepwater Horizon Oil Spill: The Research of Dr. Leila Hamdan* Erinn C. Howard
- 33 UPROOTED FOR SCIENCE *Lessons from Leaving* Alizia le Roux
- 35 CLASS DISCUSSION *Women in American Education: Lessons From the Past* T. Michelle Holser
- 38 BOOK REVIEW *Josie's Story: A Mother's Inspiring Crusade to Make Medical Care Safe* Margaret Reilly
- 40 PI PLEASURES AND PERILS *Learning to Love Leading Your Lab* Karen Elkins
- 42 MONEY MATTERS *Diversifying Your Investments: Are You Getting Your Free Lunch?* Edi Alvarez
- 44 CHAPTER NEWS Compiled by Joy Ramos



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## Creating a Future from the Past

By Faye Farmer

**W**inifred Doane, professor emerita of zoology at Arizona State University, introduced me to AWIS when I was in graduate school. Together, we revived our chapter. I would listen intently as she told me of her experiences. It is hard for me to comprehend what Winifred once faced. Ultimately, I found that I was inspired by a woman who

had come of age in a turbulent time for women in science, a woman who had a successful career, a family, and continues to be engaged after retirement. To me, she epitomizes the positive aspects of the previous 40 years of women in STEM. AWIS chapter meetings were and continue to be equal parts learning our history, taking stock of our current situation, and actively planning for an improved future for all. As we celebrate 40 years of AWIS, we start this year's magazine with an issue dedicated to reflecting upon the Past, Present, and Future of AWIS.

AWIS has a legacy of past presidents who have essentially committed their entire careers to the development of the organization: Interviews with Phoebe Leboy and Donna Dean help frame AWIS' National agenda and are coupled with an early AWIS battle against a shockingly inappropriate anatomy textbook. We are also reminded of how legislation has shaped AWIS and STEM fields through the application of Title IX to science education. Finally, we celebrate the birthday of a contributor and the awarding of THE prize to an AWIS member.

I firmly believe that we must understand our past in order to make our future, so I listen to Winifred with the same rapt attention I hope to receive one day. Like her stories, these pages are celebratory, inflammatory, and perhaps will motivate you to continue working towards the future success of all women in science generally and AWIS specifically. Here's to another 40 years of equally impressive achievements!

As always, there is plenty of opportunity for you to share your thoughts on these subjects in upcoming issues. I encourage you to submit an article to AWIS Magazine, especially during our 40th anniversary year (2011). Please contact Columns Editor Lindsay Reese (awis.columns@gmail.com), the new Features Editor Jennifer Wind (awis.magazine.features@gmail.com), or Editor-in-Chief Faye Farmer (Editor.in.Chief.AWIS@gmail.com) to receive information regarding topics and a style guide for your submission. AWIS reserves the right to edit and publish submissions, and AWIS retains ownership if the articles are published.

Finally, please congratulate Michelle Holser who is expecting a baby this coming year and decided to take some time off. She has been a valued regular columnist for a very long time and while I will miss her contribution greatly, I am very happy for her future! ■

# AWIS

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# Diversifying Your Investments: Are You Getting Your Free Lunch?

By Edi Alvarez

*Figure 1. Modern Portfolio theory was first described by Henry Markowitz in 1952. The equivalent proverb "Don't keep all your eggs in one basket," dates to 17th century Italy.*

Long term investors embrace the promise of diversification across and within asset classes based on Nobel-winning research called Modern Portfolio Theory (1) which showed that mixing certain assets together not only improves the return earned, it also decreases the risk needed to earn it. Who said that there is no such thing as a free lunch? The free lunch concept derives from the fact that diverse assets contribute differently to economic events over the long term. Yet many of us misunderstand diversification.

To help demonstrate the concept, consider the following four asset classes represented in the chart (Figure 2). The first is the US stock market, the second is world-wide non-US stocks. The last two asset classes are real estate investment trusts (REITs) and commodities, which are somewhat less common but provide a good contrast to the first two classes.

Over the last thirty years, these asset classes had short-term volatility and returns that varied considerably from each other. Figure 2 illustrates that REITs, world-wide

non-US stocks, and commodities all have higher volatility than US stocks. REITs had almost 12% average annual return while enduring an eye-popping volatility (measured by standard deviation) of 22.5%, while US stocks performed lower (less than 10%) with a volatility of 16%. If these were the only two asset classes available, investors who wanted the best annual return would choose REITs, while those who prefer a smoother ride would choose US Stocks. But would this really be the best choice?

Given our common experience over the last three years, every investor can relate to a bumpy portfolio ride and knows how they feel about volatility. In Figure 2, you can observe the role that diversification plays to help the portfolio attain a smoother ride (lower volatility) while collecting higher returns. The advantage of true diversification can be seen when you combine Portfolio-1, which contains only

US stocks, with worldwide non-US stocks to create Portfolio-2. What do you see? A new portfolio with a higher annual return AND much lower volatility! But is this

**Diversification is the  
investor's ticket to a free lunch.  
Ask yourself, are you missing out?**

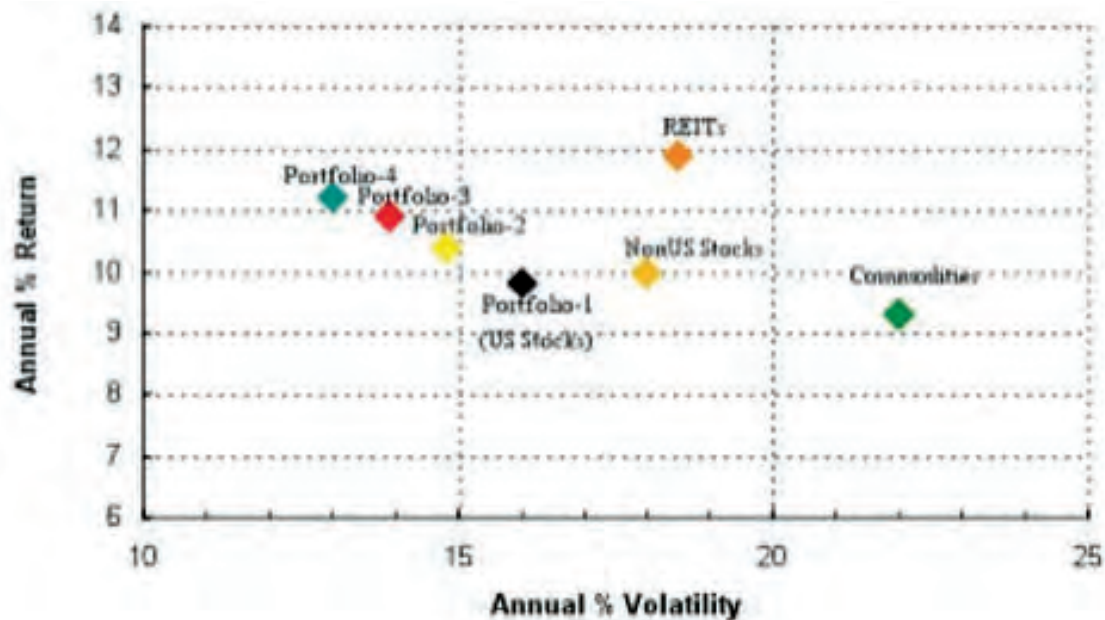


Figure 2. Why Diversify? Return-risk (volatility) chart, 1972-2010.

amazing result only specific to combining non-US world-wide and US stocks? Not if you look at Portfolio-3 and Portfolio-4. In these two portfolios we add REITs and commodities sequentially and in each case, we see an increase in the portfolio return with a further decrease in the overall volatility.

To maximally grow your portfolio and fully benefit from diversification you will also need to rebalance it. Rebalancing of asset classes and returning the portfolio to the original asset mix is an essential way to capture market gains. The talent needed during rebalancing is the ability to separate your emotions from the task at hand and do it in a disciplined manner. You will need to sell positions that are doing well while buying positions that are currently underperforming. This is rarely as easy as it sounds.

If an advisor creates a portfolio with an asset mix appropriate for your risk tolerance, review and understand the portfolio before implementing it. A wealth-building portfolio will hold securities that are low cost, high quality (good performers) and representative of several asset classes. It is important that you verify that the funds chosen actually mix uncorrelated securities and are not just more US stocks added to a portfolio that already has a complete basket of US stocks or funds. Although diversification is not the only way to counter risk, it is certainly one way that, when combined with disciplined rebalancing, has produced excellent returns.

Diversification is the investor's ticket to a free lunch. Ask yourself, are you missing out?

Your continued feedback helps to make the *Money Matters* column relevant. ■

## References

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Finances can support or derail professional and family life. It is Edie's intention to be both a resource and advocate for our financial health. Edie is a Registered Investment Advisor in California and Certified Financial Planner™ providing financial services to individuals and businesses. She is a past president of the Association for Women in Science, San Francisco Chapter, and presently serves on the AWIS Finance Committee. Edie can be contacted at [edi@aikapa.com](mailto:edi@aikapa.com).